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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/691,273	10/18/2000	Robert Anthony Marin	TK-3410-US-NA	4960

23906 7590 05/02/2005

E I DU PONT DE NEMOURS AND COMPANY
LEGAL PATENT RECORDS CENTER
BARLEY MILL PLAZA 25/1128
4417 LANCASTER PIKE
WILMINGTON, DE 19805

EXAMINER

SALVATORE, LYNDIA

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/691,273	MARIN ET AL..	
	Examiner	Art Unit	
	Lynda M Salvatore	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/30/04 (Withdrawal from Issue).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4, 7-18 and 21-30 is/are pending in the application.
- 4a) Of the above claim(s): _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4, 7-18 and 21-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

1. Prosecution on the merits of this application is reopened on claims 2-4, 7-18 and 21-30 considered unpatentable. Applicant is advised that the Notice of Allowance mailed is vacated. If the issue fee has already been paid, applicant may request a refund or request that the fee be credited to a deposit account. However, applicant may wait until the application is either found allowable or held abandoned. If allowed, upon receipt of a new Notice of Allowance, applicant may request that the previously submitted issue fee be applied. If abandoned, applicant may request refund or credit to a specified Deposit Account. The indicated allowability of claims 2-4, 7-18 and 21-30 is withdrawn in view of the newly discovered reference(s) to McGinty et al., US 6,010,970, and Harriss et al., WO 98/39509. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 2-4, 7-18, and 24-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGinty et al., US 6,010,970 in view of Blades et al., 3,081,519. Alternatively, claims 2-4, 7-18, and 24-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harriss et al., WO 98/39509 in view of Blades et al., 3,081,519

The patent issued to McGinty et al., teaches flash spinning a mixture comprising 17.7 % of high density polyethylene polyethylene and spin agent consisting of a mixture of 32 %

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cyclopentane and 68% normal pentane (Column 12, 39-54). McGinty et al., teaches flash spinning the solution into plexifilimentary film-fibrils which are collected to form a non-woven sheet (Column 12, 60-65). McGinty et al., teaches a spin temperature of 185°C (Column 12, 50-55). McGinty et al., teaches an improved bonded plexifilimentary sheet having high opacity and smoothness (Abstract)

McGinty et al., fails to teach the claimed spinning temperature, however, the claimed spinning temperature is known in the art. For example, the patent issued to Blades et al., teaches spinning linear polyethylene at temperatures ranging from 190-216°C (Column 13, 15-30 and Table IV). Blades et al., teaches that the formed strands exhibit good softness and strength properties (Column 13, 55-60).

Therefore, motivated by the desire to form plexifilimentary strands having the combination of properties such as opacity, smoothness, softness, quietness and strength it would have been obvious to one having ordinary skill in the art to increase the spinning temperature in the process taught by McGinty et al., as taught by Blades et al.

With regard to the physical property limitations recited in claims 2-4, 7-18 and 28-30, although the combination of prior art does not explicitly the desired combination of crush value, surface area, Frazier Permeability, hydrostatic head, and Gurley Hill Porosity values it is reasonable to presume that said property will be met by the plexifilimentary film-fibrils of the invention of McGinty et al., in view of Blades et al. Support for said presumption is found in the use of like materials (i.e., polyethylene/normal pentane/cyclopentane) and the use of like processes (flash-spun plexifilimentary filaments at a temperature ranging from 190-216°C), which would result in the claimed property. The burden is upon the Applicant to prove otherwise

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With regard to intended use of a garment, filter media or pillow cover, it is the position of the Examiner that since the prior art meets the chemical and structural limitations there is nothing to evidence that the non-woven sheet of McGinty et al., in view of Blades et al., could not function in the desired claimed capacities.

With respect to Harriss et al., WO 98/39509 see page 17, lines 23-35. Harriss et al., teaches a plexifilimentary sheet having high opacity, good visual uniformity and high delamination strength (Page 3, 20-25).

Harriss et al., fails to teach the claimed spinning temperature, however, the claimed spinning temperature is known in the art. For example, the patent issued to Blades et al., teaches spinning linear polyethylene at temperatures ranging from 190-216°C (Column 13, 15-30 and Table IV). Blades et al., teaches that the formed strands exhibit good softness and strength properties (Column 13, 55-60).

Therefore, motivated by the desire to form plexifilimentary strands having the combination of properties such as opacity, softness, quietness and strength (tear and/or delamination) it would have been obvious to one having ordinary skill in the art to increase the spinning temperature in the process taught by Harriss et al., as taught by Blades et al.

With regard to the physical property limitations recited in claims 2-4, 7-18 and 28-30, although the combination of prior art does not explicitly the desired combination of crush value, surface area, Frazier Permeability, hydrostatic head, and Gurley Hill Porosity values it is reasonable to presume that said property will be met by the plexifilimentary film-fibrils of the invention of Harriss et al., in view of Blades et al. Support for said presumption is found in the use of like materials (i.e., polyethylene/normal pentane/cyclopentane) and the use of like

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processes (flash-spun plexifilamentary filaments at a temperature ranging from 190-216°C), which would result in the claimed property. The burden is upon the Applicant to prove otherwise. With regard to intended use of a garment, filter media or pillow cover, it is the position of the Examiner that since the prior art meets the chemical and structural limitations there is nothing to evidence that the non-woven sheet of Harriss et al., in view of Blades et al., could not function in the desired claimed capacities.

3. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGinty et al., US 6,010,970, or Harriss et al., WO 98/39509 in view of Blades et al., 3,081,519 as applied to claim 29 above and further in view of Bisbis et al., US 5,919,539

The combination of prior art fails to specifically teach point bonding or pattern (i.e., linen and ribbed), however, the patent issued to Bisbis et al., teaches bonding TYVEK® Style 1422A panels/sheets, which are made from flash-spun polyethylene plexi-filamentary fibers that have been thermally bonded (Examples 1-4). Bisbis et al., describes the TYVEK® Style 1422A as having a linen texture on one side and a ribbed texture on the opposite side.

Therefore, motivated to provide a textured surface it would have been obvious to one having ordinary skill in the art at the time the invention was made to bond non-woven article of McGinty et al., or Nobbee et al., or Harriss et al., in view of Blades et al. al., in the same manner as the TYVEK® Style 1422A of Bisbis et al.

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Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 571-272-1482.


The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1482. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 30, 2005

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TERREL MORRIS
SUPERVISORY PATENT EXAMINER
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